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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.       | CONFIRMATION NO.       |
|--|-------------|----------------------|---------------------------|------------------------|
| 10/045,391   | 11/09/2001  | Sheng-Shing Li       | PP/1-22278/P5/CGC 2069    | 2361                   |
| 7590 08/01/2007<br>Patent Department<br>Ciba Specialty Chemicals Corporation<br>540 White Plains Road<br>P.O. Box 2005<br>Tarrytown, NY 10591-9005 |             |                      | EXAMINER<br>CHOI, PETER Y |                        |
|  |             |                      | ART UNIT<br>1771          | PAPER NUMBER           |
|  |             |                      | MAIL DATE<br>08/01/2007   | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                  |  |
|------------------------------|--------------------------------------|----------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/045,391 | <b>Applicant(s)</b><br>LI ET AL. |  |
|                              | <b>Examiner</b><br>Peter Y. Choi     | <b>Art Unit</b><br>1771          |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 May 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,7-12,17-19 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,7-12,17-19 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **FINAL ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 7-12, 17-19, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,348,736 to Patel in view of USPN 6,146,757 to Mor.

Claims 1, 2, 10, 11, and 17-19 remain rejected as substantially set forth in the Non-Final Rejection of July 24, 2006, section 5.

Claims 7-9, 12 and 25 remain rejected as substantially set forth in the Non-Final Rejection of January 10, 2007, sections 2 and 3.

### ***Response to Arguments***

3. Applicants' arguments filed May 7, 2007, have been fully considered but they are not persuasive. First, Applicants argue that the wettable fabrics of Mor and the home and personal care formulations of Patel are totally disparate arts and thus Mor and Patel are not properly combined. Second, Applicants argue that Patel teaches away from the present UNITHOX products as the present ones only have 2 or 3 ethoxylate groups. Third, Applicants argue that Patel only mentions one ethoxylated alcohol, UNITHOX 550, and that the teachings in Patel of UNILIN 425 together with the UNILIN data sheet do not read on the claimed invention. Specifically, the present additives only have 2 or 3 ethoxy groups, not 1 or 4, and the disclosure

Art Unit: 1771

of Patel together with the UNILIN data sheet is generic relative to the number of ethoxy groups. Fourth, Applicants argue that the Declaration by Dr. Gande, together with the prior one, demonstrate that not any ethoxylated alcohol will provide polyolefin fabrics with superior water absorption or wettability.

Regarding Applicants' first argument, Examiner respectfully disagrees. Under 35 U.S.C. 103(a), the obviousness of an invention cannot be established by combining the teachings of the prior art references absent some teaching, suggestion or incentive supporting the combination. This does not mean that the cited prior art references must specifically suggest making the combination. Rather, the test for obviousness is what the combined teachings of the prior art references would have suggested to those of ordinary skill in the art. This test requires us to take into account not only the specific teachings of the prior art references, but also any inferences which one skilled in the art would reasonably be expected to draw therefrom.

Patel teaches a composition used for treating fibrous materials and/or human skin, comprising a surfactant, water insoluble treating material, water and a long chain alcohol or derivative thereof, which stabilizes the liquid so as to allow storage at elevated temperatures, such as those which can be reached during storage in warmer climates, and which also helps to make fiber and skin treating materials more substantive to fibers and skin (Abstract). The composition provides a softening and antistatic effect (column 4 lines 50-65). Patel teaches that the composition may be used for treating fibrous materials (column 1 lines 15-20), such as fibers and fabrics (column 4 lines 50-60), comprising a long chain alcohol preferably containing 30-40 carbon atoms (column 3 lines 15-25). Patel teaches that the preferred long chain alcohol is an alcohol sold under the name of UNILIN (columns 3-4). One of the preferred UNILIN is

Art Unit: 1771

UNILIN 425 having a weight average content of alcohol of 30 (column 3, lines 64- 65). Patel also indicates that the corresponding ethylene oxide derivatives of the UNILIN alcohols can also be used (column 21 lines 40-45).

Patel fails to teach that the fiber or filament comprises a polyolefin. Mor teaches a wettable fiber or filament having a thermoplastic polymer, a first wetting agent and a second wetting agent (column 7 lines 65-67, column 8 lines 1-5) useful in products such as diaper inner liners, battery cell separators and other applications (column 13 lines 1-5). Mor teaches that the preferred thermoplastic polymer is a polyolefin (column 9 lines 65-67) and that the polyolefin is preferably polyethylene or polypropylene (column 10 lines 1-5). Mor notes that polyester liners wet fairly readily and wick effectively but polyester webs have a coarse feeling. Polypropylene provides a much softer web than polyester but it wets poorly (column 13 lines 45-55). Therefore, the modified web of Mor with integrated wetting agent would provide a soft feel and good wetting properties. Mor teaches that the second wetting agent can comprise an alkoxylated fatty alcohol (column 6 lines 30-35). Mor teaches that in a preferred embodiment the alkoxylated fatty alcohol is a combination of an ethoxylated cetyl alcohol and an ethoxylated stearyl alcohol and preferably contains from about 2 to 10 moles of ethylene oxide condensed thereon (column 6 lines 40-45). Mor teaches that a blend of wetting agents allows a broad range of wetting characteristics. The blend allows control over the degree of wetting and permanence which may be obtained by varying concentrations and the ratio of the first and second wetting agents (column 14 lines 20-25). The present fibers are also useful as a blend component for other fibers whereby the thermoplastic properties as well as the wettability, softeners and lubricity of

Art Unit: 1771

the fibers are found to be advantageous. The fibers or filaments can be in the form of a woven fabric, a non-woven fabric or a knitted (column 13 lines 25-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use polypropylene, a type of polyolefin, as the fiber of Patel as suggested by Mor motivated by the desire to create a fiber which is very soft and has good wetting properties.

Additionally, Applicants' remarks appear to contradict Applicants' arguments. Applicants state that Mor is aimed at nonwoven fabrics and Patel is cited as disclosing treating fibers and fabrics. Mor teaches that fibers are the main constituents of fabrics and nonwovens (Mor, column 1 lines 40-42). Patel describes throughout the increased softness and smoothness of fabrics to which the composition of Patel has been applied (Patel, column 13 lines 45-55, column 16 lines 29-44). Therefore, Mor and Patel are in the same or similar arts and are properly combined.

Regarding Applicants' second argument, Examiner respectfully disagrees. Patel teaches using an ethoxylated alcohol, which will normally contain between 18 to 54 carbon atoms and up to about 20 ethoxy groups per mole (columns 3 and 4). The preferred alcohol is UNILIN 425 which comprises about 30 carbon atoms (column 3 lines 64-67). Additionally, the derivatives of the UNILIN's may be employed (column 4 lines 11-20). While Patel does not teach the exact structure of the ethoxylated UNILIN 425, the non-patent literature entitled "The Use of UNILIN Alcohols in the Formation of Ethoxylates and Their Properties" by the Petrolite Specialty Polymers Group, teaches that a derivative of UNILIN 425 ethoxylate may contain 10-80% of ethylene oxide to form the ethoxylate alcohol consisting of 1, 2, or 4 monomers of ethoxy groups. Patel teaches that the ethoxy groups may comprise up to about 20 ethoxy groups per

Art Unit: 1771

mole, and the non-patent literature teaches that a derivative of UNILIN 425 may contain 1, 2 or 4 monomers of ethoxy groups. Applicants' claimed compound comprises 2 or 3 ethoxy groups. As the number of ethoxy groups of the derivative of UNILIN 425 may contain 2 monomers of ethoxy groups, which overlaps the claimed 2 ethoxy groups of the claimed compound, the derivative of UNILIN 425 appears to anticipate the claimed invention.

Regarding Applicants' third argument, Examiner respectfully disagrees. First, it does not appear that Applicants' arguments are commensurate in scope with the claimed invention as Applicants' claims do not recite that the compound comprises UNITHOX 420. Second, as set forth above, a derivative of UNILIN 425 appears to anticipate the claimed 2 or 3 ethoxy groups. While Patel mentions UNITHOX 550, Patel also teaches that preferred UNILIN's are 425 and 550 (Patel, column 3 lines 64-67). Patel teaches that derivatives of UNILIN's, *such as* UNITHOX 550, may be employed (Patel, column 4 lines 16-20), including the corresponding ethylene oxide derivatives of such UNILIN alcohols, such as UNITHOXes (Patel, column 21 lines 41-46). Clearly, the derivatives of UNILIN, including the derivative of UNILIN 425, was contemplated by Patel as UNILIN 425 is mentioned throughout. As such, the derivative of UNILIN 425 is the closest prior art. Applicants have not submitted evidence that the derivative of UNILIN 425 is not and/or does not include UNITHOX 420 which normally contains between 18 to 54 carbon atoms, or about 30 carbon atoms, and up to about 20 ethoxy groups per mole, or 10-80% of ethylene oxide to form the ethoxylate alcohol consisting of 1, 2, or 4 monomers of ethoxy groups. Therefore, the derivative of UNILIN 425 appears to anticipate the claimed invention.

Regarding Applicants' fourth argument, Examiner respectfully disagrees. Applicants argue that the claimed ethoxylated alcohol will provide polyolefin fabrics with superior water absorption or wettability. It should be noted that Applicants have not claimed water absorption or wettability, or a measurement associated with water absorption or wettability, or a structure or composition to which water absorption or wettability may be attributed, other than the claimed invention. Therefore, the water absorption and wettability characteristics, and arguments associated with such characteristics, appear to be outside the scope of the claimed invention as such characteristics are not claimed. As set forth above, the compound of Patel, wherein the compound is a derivative of UNILIN 425, appears to anticipate the claimed compound. Additionally, Patel in view of Mor appears to teach the application of the compound on a polyolefin fiber or fabric. Therefore, as Patel in view of Mor appears to comprise a substantially similar structure and composition as the claimed invention, the invention of Patel in view of Mor appears to anticipate the claimed invention.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37




Art Unit: 1771


CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Y. Choi whose telephone number is (571) 272-6730. The examiner can normally be reached on Monday - Friday, 08:00 - 15:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Peter Y. Choi  
July 23, 2007

  
ANDREW PIZIALI  
PRIMARY EXAMINER